Wetland Conservation Act – Basic Administration Part 3

Minnesota Board of Water & Soil Resources

What are they doing way up there?

Minnesota Board of Water & Soil Resources

Wetland Replacement

Wetland Replacement

- Wetlands must not be drained or filled, wholly or partially, unless replaced by restoring or creating wetlands areas of at least equal public value .

- Anyone intending to impact a wetland, that does not qualify for an exemption or no-loss, *must* obtain approval of a replacement plan before initiating the impact.

Replacement Plan Overview

Replacement plan components (in order!)

1. Delineation & typing of wetlands
2. Sequencing (must avoid, then minimize, then rectify, then replace)
3. Calculate replacement requirement
4. Wetland replacement proposal (purchase credits from wetland bank, project-specific replacement, or combination of both)

Replacement Plans

Special Considerations:

- Endangered and Threatened Species.
- Rare Natural Communities.
- Special Fish and Wildlife Resources.
- Archaeological, Historic, or Cultural Resources.
- Groundwater Sensitivity.
- Sensitive Surface Waters.
- Education or Research Use.
- Waste Disposal Sites.
- Consistency with other plans.

Wetland impacts or replacement involving these issues must generally be denied

What is Sequencing?

The process followed by applicants proposing a project that impacts wetlands. In descending order, applicants must:

A. Avoid **direct or indirect impacts;**

B. Minimize **impacts;**

C. Rectify **impacts;**

D. Reduce or eliminate **impacts that can occur over time;**

E. Replace **unavoidable impacts (i.e. replacement or mitigation).**

When is Sequencing Required?

When a project proposes to impact a wetland and:

- No exemptions or no-loss provisions apply
- The impact is regulated by WCA (i.e. drain, fill, excavate in 3/4/5); and thus
- A wetland replacement plan is required.

Who is responsible for sequencing?

Applicant must demonstrate that sequencing has been complied with before the LGU can even consider a replacement plan.

Who is responsible for sequencing? (continued)

LGU (with assistance from the TEP) makes the determination that sequencing has been demonstrated.

Sequencing

- Arguably the most subjective part of WCA
- Requires LGU, TEP, and applicant to interpret and consider a wide range of issues beyond their expertise (economics, safety, public need, cost/benefit, building design standards, parking requirements, road design standards, aesthetics, marketability, etc.)

Sequencing

- Is not science-based
- Involves assessing concepts such as “reasonable”, “feasible”, and “prudent”
- Because the concepts behind avoidance and minimization are so overlapping, the assessment of avoidance should be clearly separated from minimization.

How do you *demonstrate* sequencing?

- **Clearly define the** purpose **of the project.**
- **Identify the physical, economic, and/or demographic** requirements **of the project.**
- Justify **why <u>this</u> project should or must go on <u>this</u> site.**
- **Show (concept plans, discarded grading plans, etc.) and describe other *reasonable*** alternatives **that were considered or could be considered.**

Defining Project Purpose

- A well-defined project purpose facilitates the asking of questions about alternatives.
- A purpose that is too broad (providing residential development) allows for too many alternatives.
- A purpose that is too narrow (construct 12 houses on this parcel) does not allow for much of any alternatives.

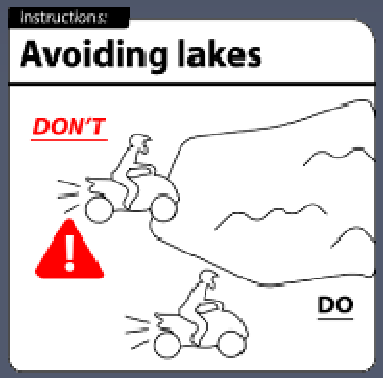
Identifying Project Requirements

- Only interested in the requirements that directly or indirectly relate to the wetland impacts.

- The source of the requirement should be identified. In other words, is this a City requirement or a self-imposed requirement? If it is a self-imposed requirement, then explain the basis for it.

Alternatives Analysis

- **Wetland** Avoidance **Alternatives**



- **Wetland** Minimization **Alternatives**

Wetland Avoidance Alternatives

If project is wetland-dependent **(think commercial cranberry bogs), then analysis of avoidance alternatives is not required.**

Otherwise, applicant must provide *at least* 2 alternatives that totally avoid wetland impacts.

Projects that repair or rehabilite existing infrastructure must provide at least 1 alternative.

Wetland Avoidance Alternatives (continued)

What is *feasible* and *prudent*? Depends on who you ask, right?

Actually, the WCA rule tells us what this means:

- Can be done from an engineering perspective
- Is in accordance with accepted engineering standards and practices
- Is consistent with public health, safety, and welfare requirements
- Is environmentally preferable based on social, economic, and environmental impacts
- Would not create any truly unusual problems (my personal favorite)

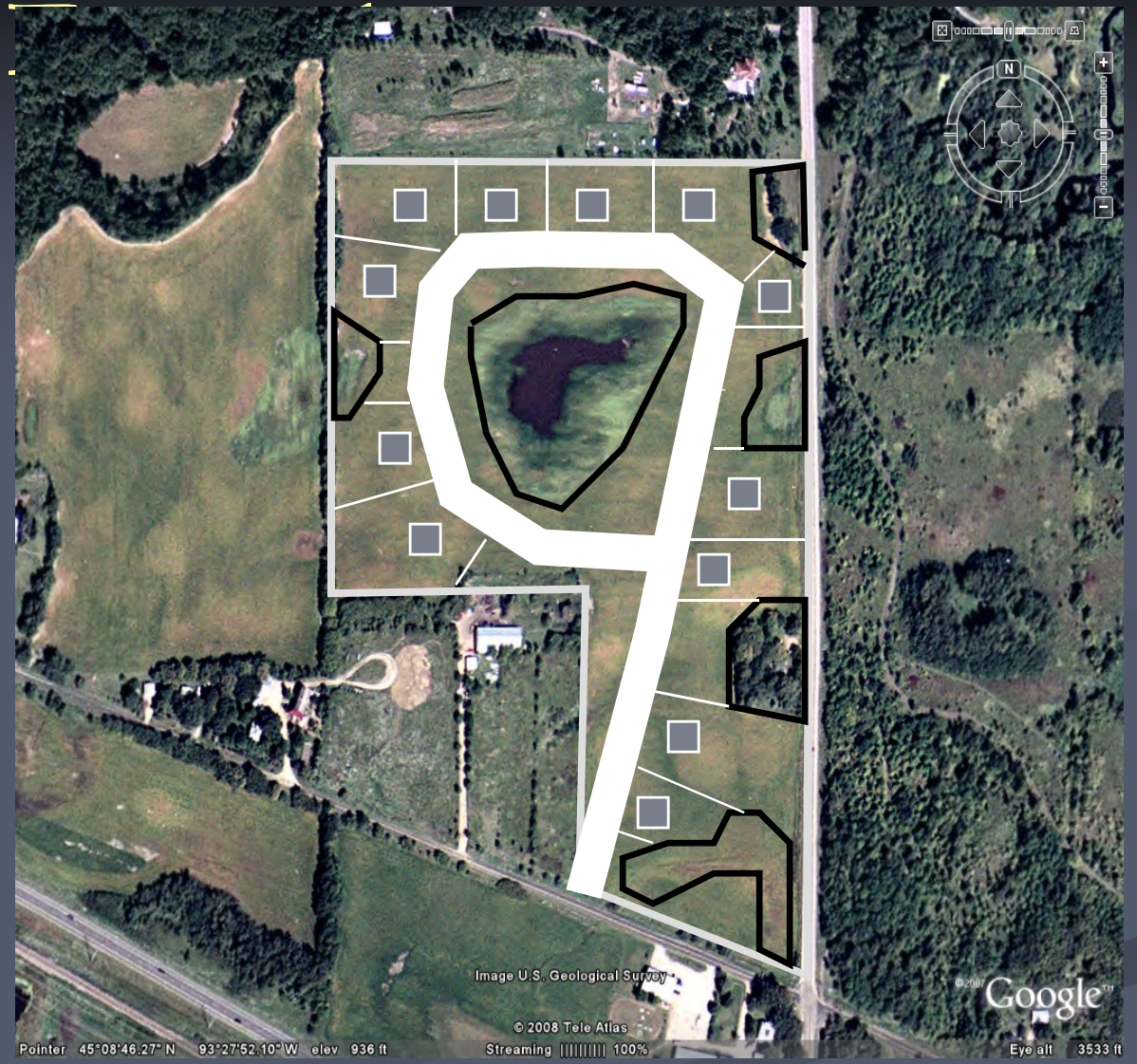
Wetland Avoidance Alternatives (continued)

So, is the TEP and LGU representative supposed to know what is "consistent with public safety" or what "accepted engineering practices" are?

No, not necessarily

- Consult outside experts (fire chief, traffic engineer, etc.).
- Ask project engineer to explain accepted engineering practices in terms of the particular project/alternative being considered.
- Use and apply common sense to the situation.

This is an avoidance alternative. Note: No wetland impacts



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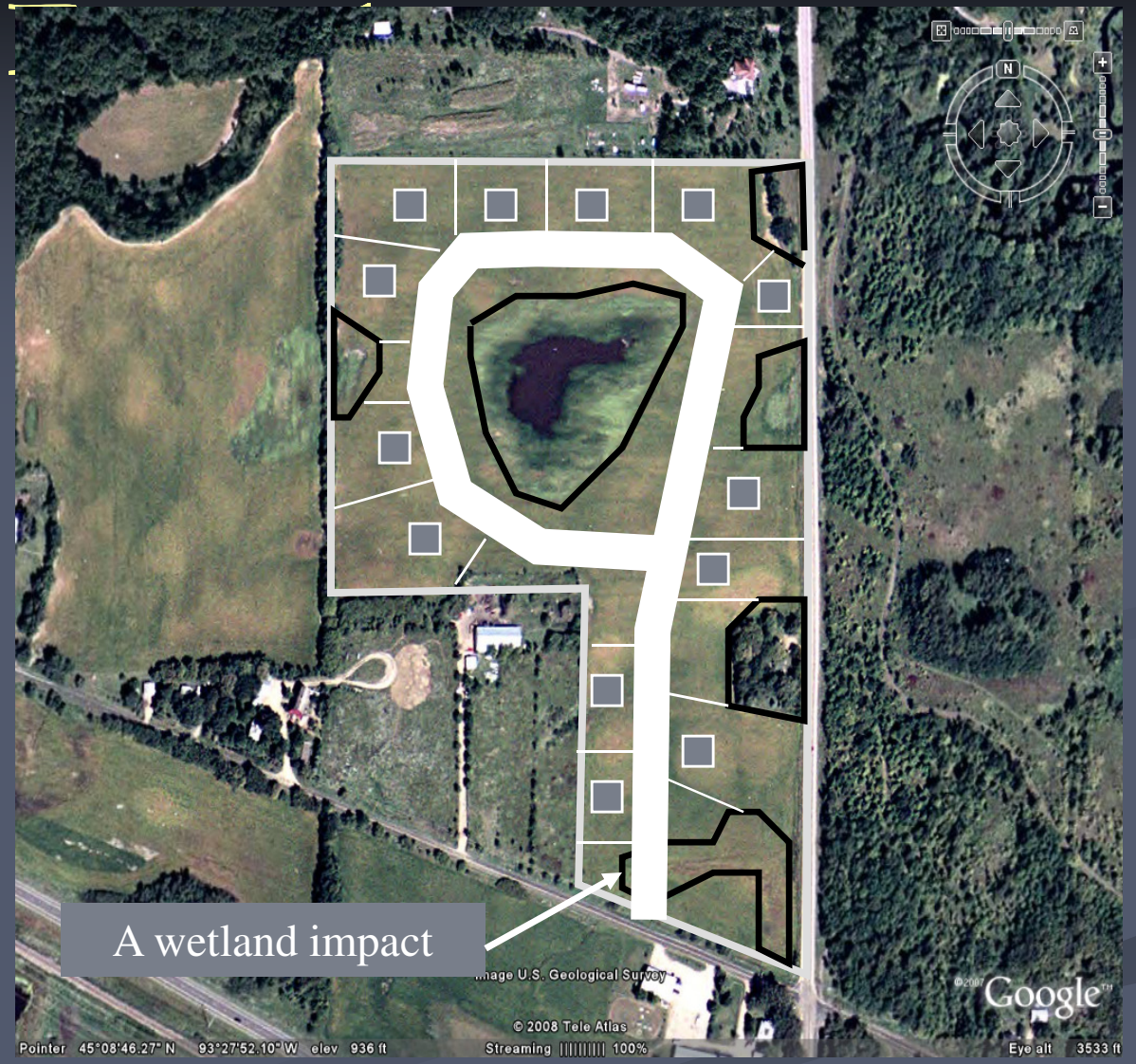
This is **not** an avoidance alternative because a wetland impact is proposed.



Wetland Avoidance Alternatives (continued)

The preceding examples seem obvious, but many think that avoiding some or most of the wetlands is an avoidance alternative. It is not.

Wetland Avoidance Alternatives (continued)

What should the LGU consider in terms of avoidance alternatives besides "feasible and prudent"?

- Are there other sites in the area that could accomplish the same project purpose (even if not owned by the applicant)?

- If alternate sites were considered by the applicant, were they at least "generally suitable" for the project?

Wetland Avoidance Alternatives (continued)

What should the LGU consider in terms of avoidance alternatives besides "feasible and prudent"? (continued)

- Could the size, configuration, or density of the project be modified to avoid wetlands?
- Has the applicant made efforts to remove constraints (zoning restrictions, ordinance requirements, etc.) that are causing wetland impacts (i.e. request for variances, PUD, conditional use permit, etc.)?

Wetland Avoidance Alternatives (continued)

The LGU must deny the replacement plan if a feasible and prudent alternative exists that would avoid wetland impacts.

Wetland Impact Minimization

Only after the avoidance analysis has been completed can the applicant and LGU move on to the *next step* - evaluating impact minimization.

STEP 1

Avoidance Alternatives

STEP 2

Minimization Assessment

Wetland Impact Minimization (continued)

Considerations for minimization:

- **Spatial requirements of the project (how big)**

  (this Wallywonderful retail store requires 10,000 sf of floor space and 200 parking stalls……)

- **Location of existing features (natural or man made) that influence the configuration of the project**

  (a pipeline easement on the west side of the site will not allow the building to be placed in that area……)

Wetland Impact Minimization (continued)

Considerations for minimization (continued):

- How the project purpose relates to the project configuration, density, etc.

  (in order for this project to provide outdoor storage of recyclable materials, the storage area must be shielded from the road by the building…..)

- The sensitivity of the site design to existing natural features (topography, hydrology, vegetation, etc.)

  (home sites must be located away from the steep, unstable slopes on the eastern portion of the site…….)

- The value, function, and distribution of wetlands on the site

  (priority must be given to avoid the high quality wetland along the south boundary….)

Wetland Impact Minimization (continued)

Considerations for minimization (continued):

- **Individual and cumulative impacts**
- **Applicant's effort to modify the size, configuration, and density of the project**
- **Applicant's effort to remove constraints (zoning restrictions, ordinance requirements, etc.) that are causing wetland impacts (i.e. request for variances, PUD, conditional use permit, etc.)?**
- **Applicant's effort to confine impacts to the fringe of wetlands**

Sequencing Flexibility

What is it?

Flexibility in the *application of* the sequencing steps.

It does not mean that the steps can be skipped.

Sequencing Flexibility.

Flexibility could be exercised by the LGU in several ways:

- Threshold for meeting avoidance requirements is lowered.
- Threshold for meeting minimization requirements is lowered.

What are the Requirements for Sequencing Flexibility?

- Alternatives have been considered (i.e. avoidance and minimization alternatives presented by the applicant and reviewed by the LGU)

- Proposed replacement wetland better than impacted wetland

  - Note: this is the only time that the proposed replacement is looked at before sequencing is determined to be met.

What are the Requirements for Sequencing Flexibility? (continued)

How do we determine if the replacement wetland will be better than the impacted wetland?

- Functional Assessment (i.e. MnRAM or HGM for prairie potholes)
- TEP must review it

When can sequencing flexibility be applied?

The wetland in question is degraded to the point where replacement would result in an almost certain gain in value.

- **<u>"Degraded Wetland"</u> is one that provides minimal function and value due to human activities (drainage, fill, pollution, vegetative manipulation, manipulation of adjacent upland).**

Not all wetlands that have been manipulated are necessarily degraded!

When can sequencing flexibility be applied? (continued)

- **Preservation of the wetland results in it's severe degradation due to surrounding land uses or other circumstances beyond land use controls and mechanisms**

Are we going to save this one?

When can sequencing flexibility be applied? (continued)

- The only feasible areas for development and replacement are uplands that have greater ecosystem value than the wetland.
  - This is a rare circumstance.
  - Applicant must perpetually preserve the upland site (i.e. conservation easement).
  - Check DNR resources on plant communities, T&E species, etc.

When can sequencing flexibility be applied? (continued)

The wetland is a site where human health and safety is a factor.

Important Points about Sequencing Flexibility

- The LGU decides if they want to apply it. It cannot be "invoked" by the applicant.
- Not case-by-case, need LGU policy.
- If the LGU decides to apply it, then the requirements and criteria must be met and the information to justify it must be provided by the applicant.

Wetland Replacement Requirements

Only *after* an applicant adequately demonstrates compliance with sequencing requirements are we concerned with what the wetland replacement requirements are!

Wetland Replacement

The required replacement amount for impacts that have met sequencing criteria (according to the LGU) varies according to the following:

- **The location of the replacement site relative to the impact site.**
- **The timing of the replacement wetland construction and establishment relative to the timing of the impact.**
- **The plant community type or hydrologic conditions/landscape position of the proposed replacement wetland relative to the impacted wetland.**

Replacement Plan Overview

- **Wetland replacement requirements are expressed in terms of the ratio of wetland replacement credits to the area of wetland impacted.**

Example Ratio: 2.5 : 1

Wetland Replacement Credits (area-based)

Area of Wetland Impacts (typically acres or sf)

Project-Specific Ratios

Minimum Replacement Ratios: Project-Specific		
Location of impact	Replacement	Minimum replacement ratio
>80% area or agricultural land	Outside major watershed or out-of-kind	1.5:1
	Within major watershed and in-kind	1.1
<50% area, 50-80% area, ~~or~~ and nonagricultural land	Outside major watershed or out-of-kind	2.5:1
	Within major watershed and in-kind	2:1

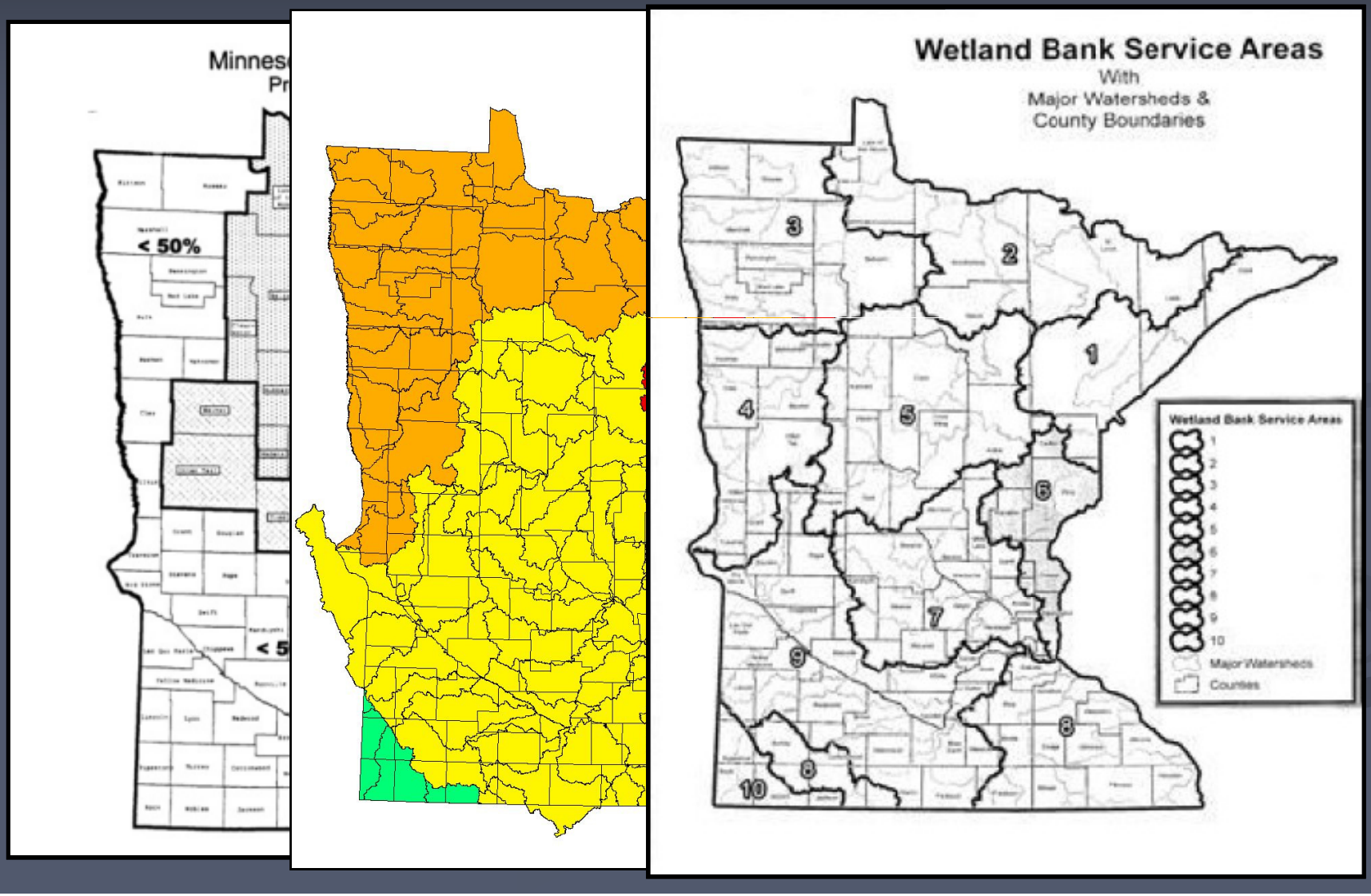
- The ratio can be reduced by .5:1 when replacement is both in-kind and in the same major watershed.

Banking Ratios

Minimum Replacement Ratios: Banking		
Location of impact	Replacement	Minimum replacement ratio
>80% area or agricultural land	Outside bank service area	1.5:1
	Within bank service area	1.1
<50% area, 50-80% area, ~~or~~ and nonagricultural land	Outside bank service area	2.5:1
	Within bank service area	2:1

- The ratio can be reduced by .5:1 when replacement is both through banking (in-advance) and in the same BSA.

Replacement Location



Replacement Location

Regardless of replacement ratio, wetland replacement siting must follow the following priority order in 7-County Metro:

1. **Same County (as the impacted wetland);**
2. **Another 7-County Metro County; or**
3. **One of the major watersheds that are present in the 7-County Metro area, but at least 1:1 must be replaced in the 7-County Metro area.**

Replacement Location

For all other <80% Counties the siting criteria is different:

- **Onsite or same minor watershed (as impacted wetland)**
- **Same major watershed**
- **Same County**
- **For replacement by wetland banking in the same bank service area, but in the same presettlement area**
- **For project specific in an adjacent major watershed**
- **For banking in an adjacent bank service area, but in the same presettlement area**

Replacement Location

Public Transportation Projects have different siting criteria.

- **You can't make this stuff up!!!! Wow!**
- **Look it up when you need to.**
- **Hope for future Statute Changes**

In-Kind Wetland Replacement

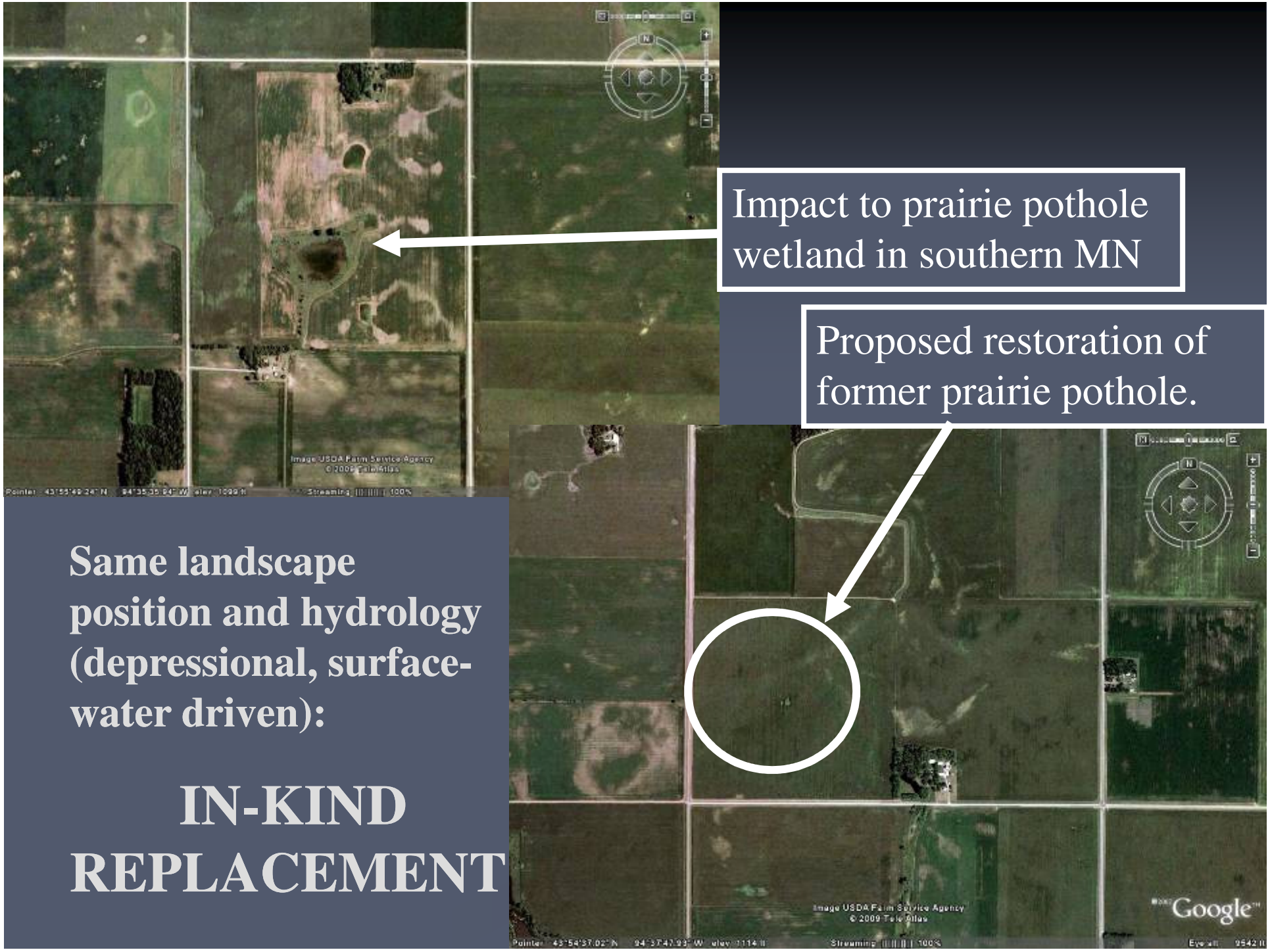
- **In-kind means a wetland of similar type and function to the impacted wetland. Wetland replacement is in-kind if it is:**

- **A. the** same type or plant community **as the impacted wetland or, for degraded wetlands, the same type or plant community that historically occurred at the impact site; or**

- **B. the** same hydrologic conditions and landscape position **as the impacted wetland."**

In-Kind (Cont'd)

- Hydrologic conditions? Where does the water come from?
  - Surface water driven from upslope overland flow
  - Groundwater fluctuations (regional or perched)
  - Flow-through
  - Overbank flow
  - What is the level and persistence of saturation/inundation?
- Landscape position?
  - Depressional (no inlet or outlet, inlet only, outlet only, inlet and outlet)
  - Slope
  - Channel
  - Floodplain
  - Fringe
  - "Blanket bog"/raised


Impact to prairie pothole wetland in southern MN
Proposed restoration of former prairie pothole.
Same landscape position and hydrology (depressional, surface-water driven):
IN-KIND REPLACEMENT
Image USDA Farm Service Agency
© 2009 Tele Atlas
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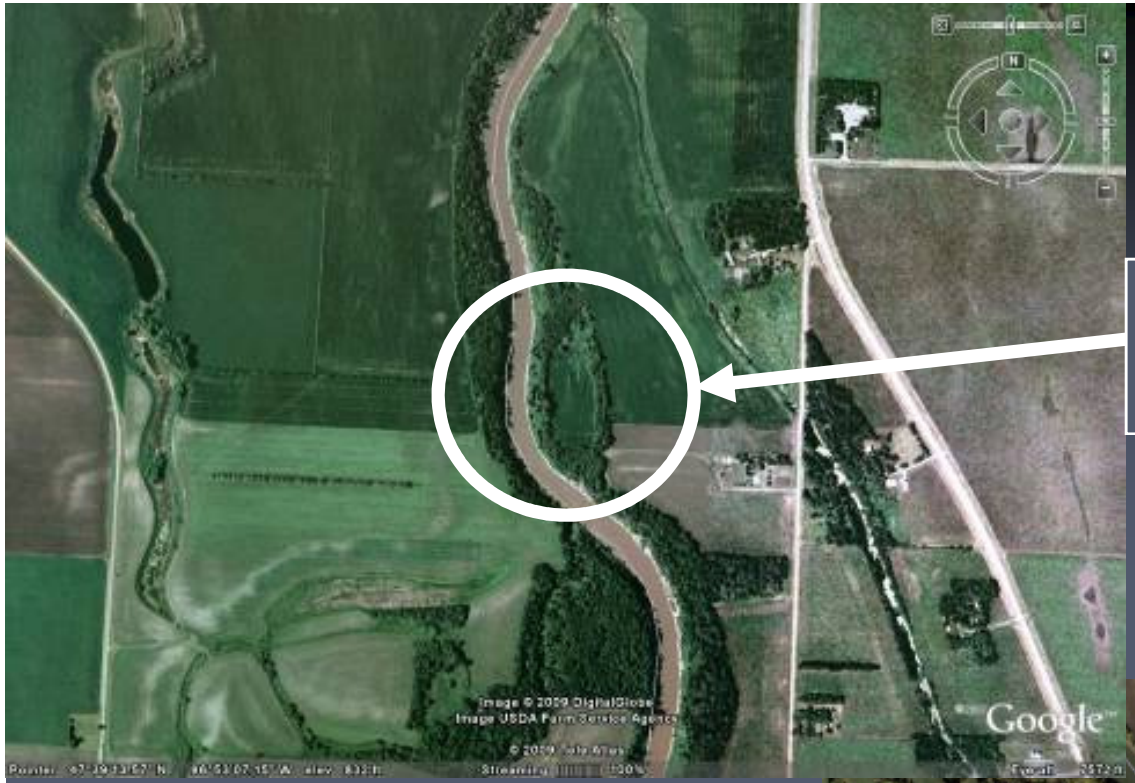


Impact to wetland in the floodplain of a river

Proposed restoration of wetland in a river floodplain

Same landscape position (floodplain) and hydrology (overbank and overland flow):

IN-KIND REPLACEMENT

In-Kind

- The LGU may authorize the use of out-of-kind wetland replacement in the same ratio allowed for in-kind replacement… when it consists of a type or plant community that has been significantly lost in the watershed or that will provide important functional benefits to the watershed…, as determined by the TEP based on a review of available evidence or according to a local plan approved by the board.

- A reduced ratio for out-of-kind is typically not appropriate for wetlands that are difficult to replace, such as white cedar swamps or bogs.

Ecological Suitability and Sustainability.

- The preferred method of replacement is that which takes advantage of naturally occurring hydrogeomorphic conditions with minimal landscape alteration and is most likely to result in a wetland area that functions wholly, perpetually, and naturally.
- Wetland restoration is generally preferred over creation and restoration of completely impacted wetlands is generally preferred over other methods of replacement.

Ecological suitability and sustainability (cont'd)

- Restoration and replacement of wetlands must be accomplished according to the ecology of the landscape area.

- The replacement site must be ecologically suitable for providing the desired functions and compatible with adjacent land uses. A replacement plan that would result in wetland types or characteristics that do not naturally occur in the landscape area in which the replacement will occur must be denied.

- Replacement must not adversely affect other habitat types or ecological communities that are important in maintaining the overall biological diversity of the area.

Ecological suitability and sustainability (cont'd)

- Replacement projects must be located and designed, to the maximum extent practicable, to be self-sustaining once performance standards have been achieved.

- "Self-sustaining" refers to the ability of a wetland to provide the desired functions over time in a changing landscape without human intervention.

Self-Sustaining?

- Examples of replacement that is likely to be self-sustaining:
  - **Tile breaks in natural basin**
  - **A wetland restored adjacent to a lake or protected habitat with a sufficient buffer**
  - **Almost all restorations of natural conditions when watershed conditions and runoff amounts haven't and won't change significantly**

Self-Sustaining?

- Examples of replacement where there is increased potential to NOT be self-sustaining:
  - **A wetland restoration or creation next to judicial ditch in need of repair (or adjacent to any land where the right to drain it exists and that drainage could effect the replacement wetland)**
  - **The site is surrounded by reed canary grass or other invasives and their removal or control is not possible**
  - **An urban housing development where the replacement wetland is in or adjacent to open land that is likely to develop in the future**
  - **Constructed wetlands where the hydrology is dependent on long berms**

Ecological suitability and sustainability (cont'd)

- **In addition to items A to C, when determining the location, type, function, and design of replacement, <u>applicants and LGUs must consider</u>:**
  - landscape position,
  - habitat requirements,
  - development and habitat loss trends,
  - sources of watershed impairment,
  - protection and maintenance of upland resources and riparian areas, and
  - providing a suite of functions.

Required upland buffer

- **"Establishment or preservation of unmanicured vegetated upland buffer areas** is required adjacent and contiguous to replacement wetlands receiving credit **under part 8420.0526, subparts 3 to 7."**

- **"For replacement wetlands less than two acres in size, the buffer must be a minimum average width of 25 feet. For all other replacement wetlands, the buffer must be a minimum width of 25 feet and an average width of 50 feet."**

Required upland buffer (cont'd)

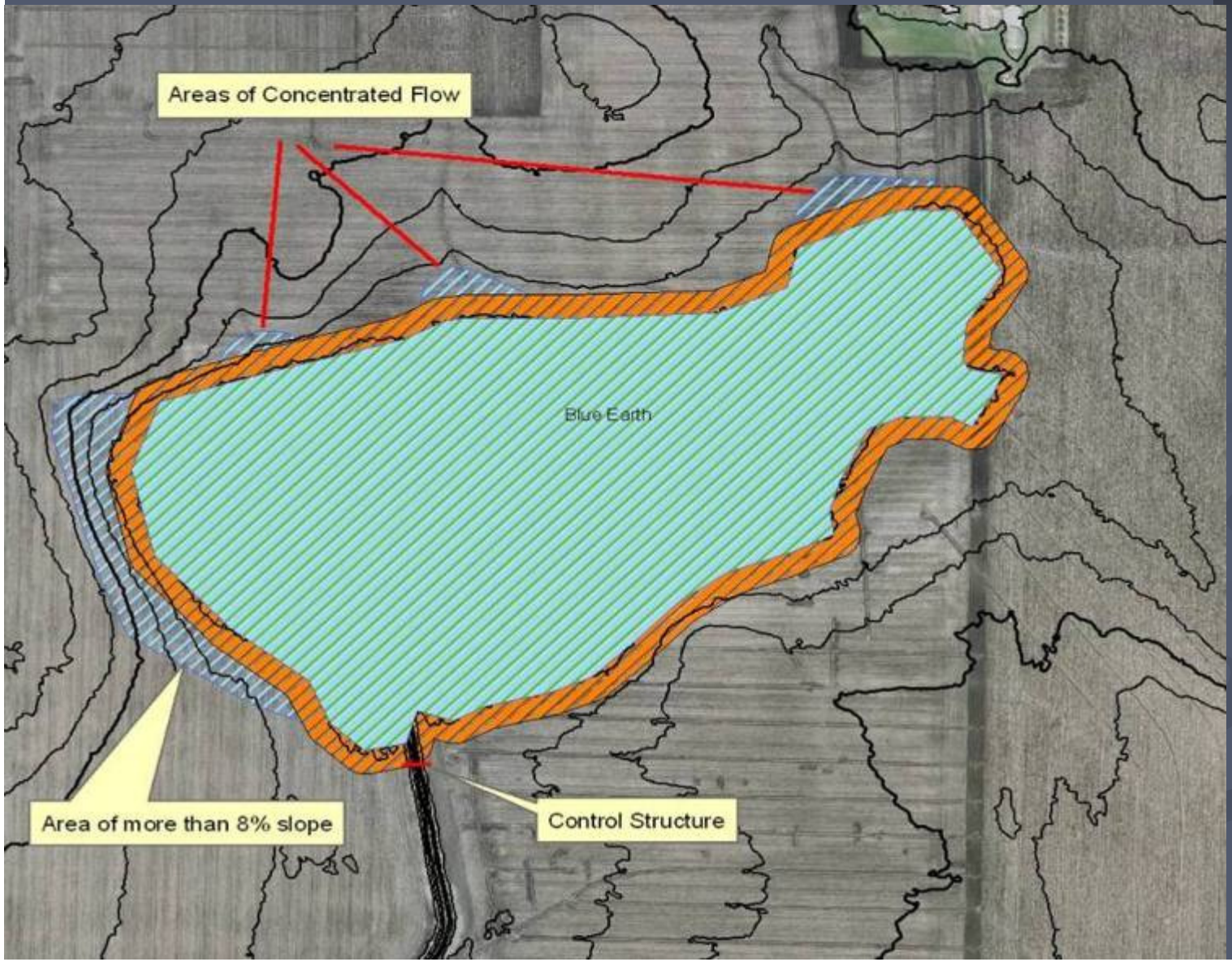
- "The LGU may vary the standards… based on a recommendation by the TEP **when compliance is not practicable or feasible, and the replacement wetland will otherwise meet the requirements of subpart 5, or when the variance would be ecologically beneficial.**"

When to vary the buffer standard

If the property line crossed the area that of the 25 ft minimum buffer.

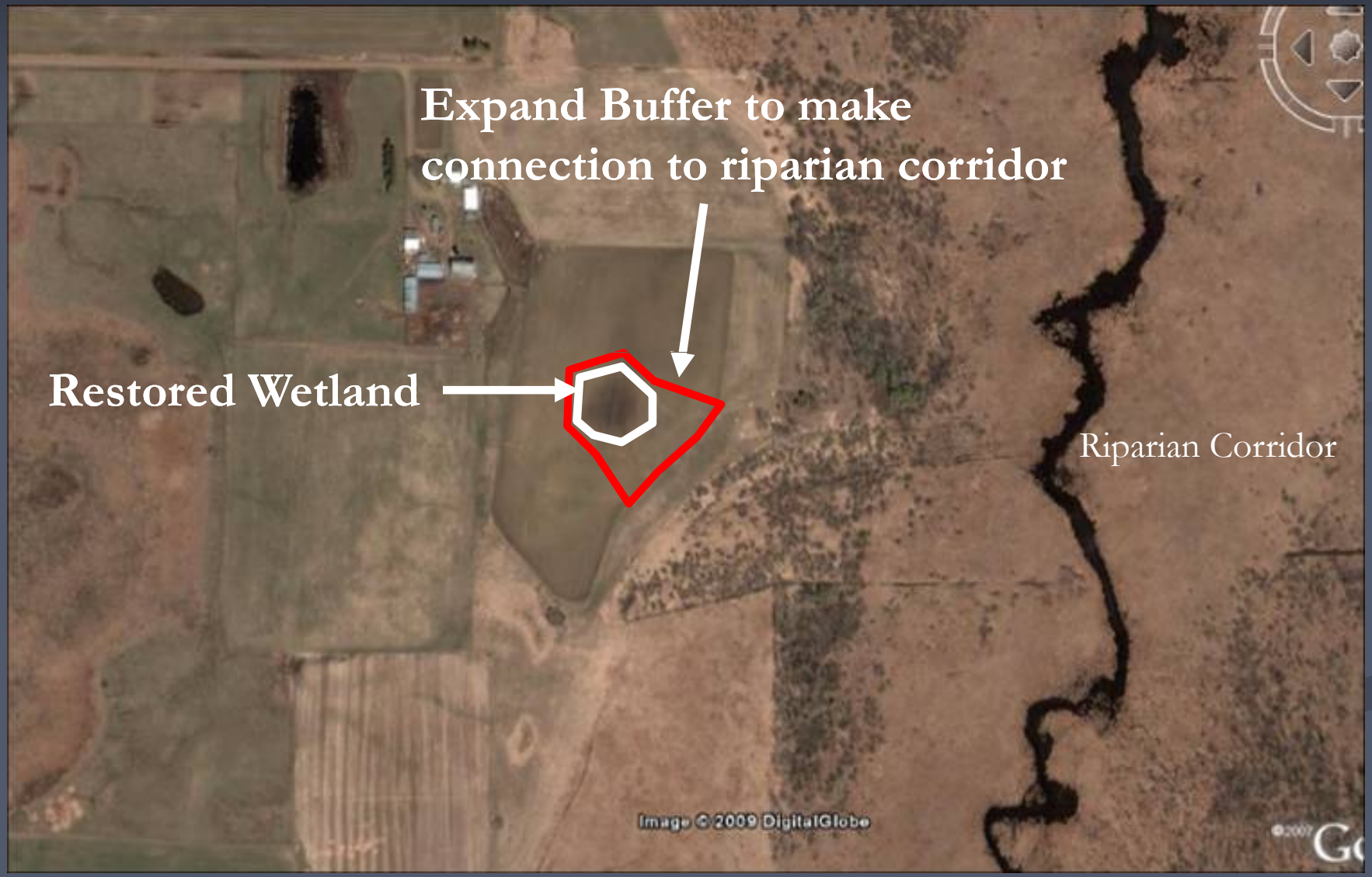
The TEP could deviate the requirement and allow the buffer to be smaller at the property line.

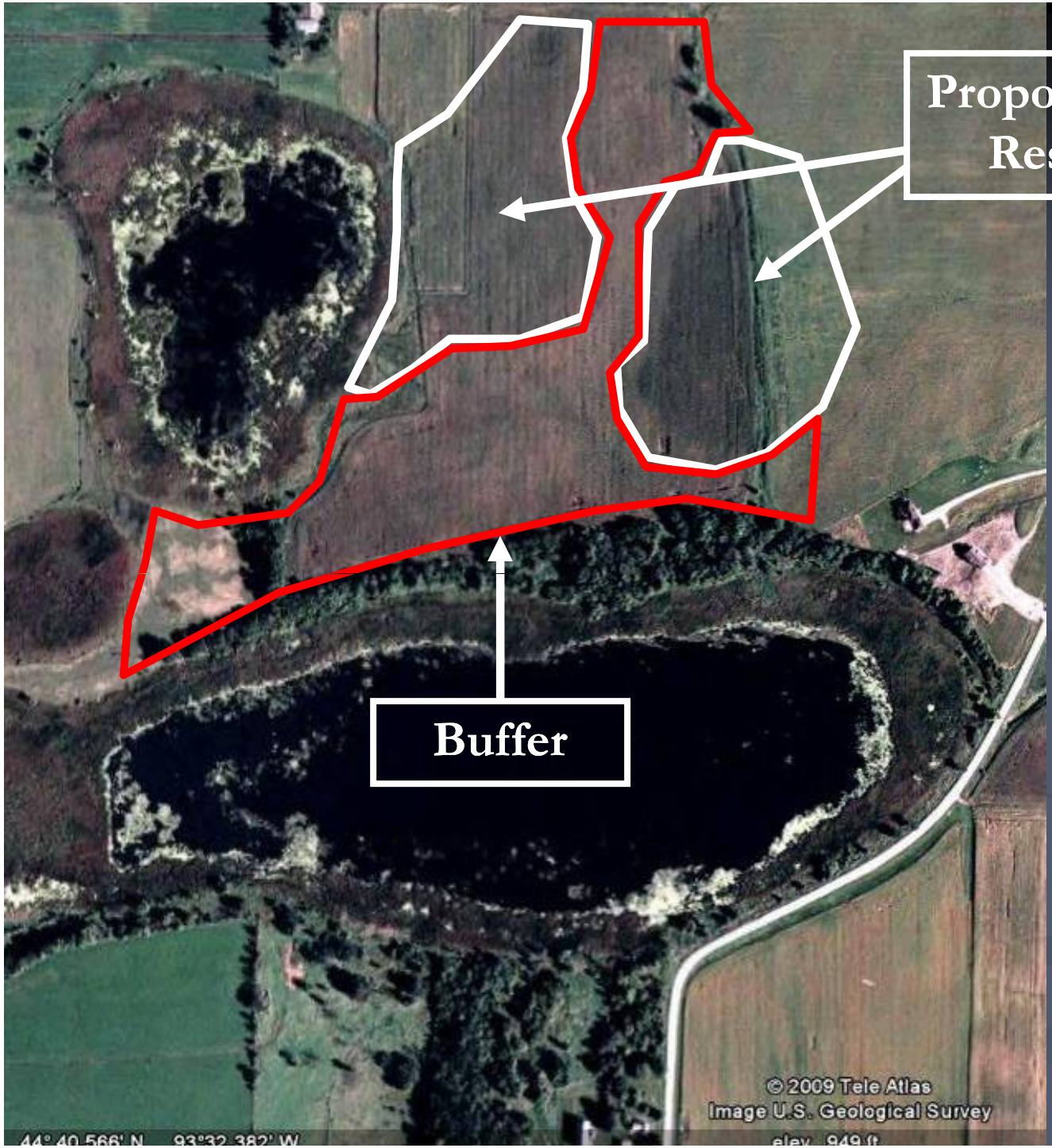
Where are some areas you could deviate from the base requirements?



Allowing little or no buffer on the downstream side in order to obtain more buffer in areas of concentrated flow may be a desirable exchange.

If wildlife habitat is our goal, connectivity to other habitats can be beneficial to the wetland.





Allowing little or no buffer on the outside edges in exchange for connecting 4 wetlands into one functional unit will provide significant habitat benefits both for the replacement wetlands and the existing wetlands.

Timing of Replacement

- "Replacement of wetland function and value must be completed in advance of or concurrent with the actual wetland impact.

- Replacement is in advance if the replacement is:
  - (1) approved wetland bank credits withdrawn before the impact; or
  - (2) project-specific replacement for which construction has been certified and the first monitoring report of the first full growing season following construction certification has been submitted according to part 8420.0810, and the replacement meets all goals and performance standards applicable to that development stage of the replacement site."

Financial Assurance

- For wetland replacement that is not in advance, a financial assurance acceptable to the LGU must be submitted to, and approved by, the LGU to ensure successful replacement. The LGU may waive this requirement if it determines the financial assurance is not necessary to ensure successful replacement.

- Submittal of the financial assurance is the default. *The LGU must have sufficient evidence and rationale to determine the financial assurance is not necessary to ensure successful replacement in order to waive it (on a case-by-case basis).*

Forms of a Financial Assurance

- Examples of Financial Assurance:
  - Letter of credit
  - Performance Bond
  - Cash

- Letter of credit or bond:
  - To collect, you could have to go through the applicant's banking institution which will take time and work.
  - Be mindful of expiration dates!

- Consult with your attorney to determine the best financial assurance mechanism for your situation!

Use of Financial Assurance

- The financial assurance may be used to cover costs of actions necessary to bring the project into compliance with the approved replacement plan specifications and monitoring requirements.
- The financial assurance does not serve as an in-lieu fee and is not a substitute for enforcement, but may be used for repair, construction, vegetation establishment and management, maintenance, monitoring, or other actions the LGU determines necessary to ensure adequate replacement.

Use of Financial Assurance (cont'd)

- Before drawing on the financial assurance, the LGU must provide written notice to the landowner stating the actions necessary to bring the replacement project into compliance and that the landowner has 30 days to complete the actions, after which the LGU will use the financial assurance to gain compliance.

- Use of the financial assurance by the LGU may be appealed by the landowner within 30 days after the date on which the notice is mailed.

Release of Financial Assurance

- The LGU may release a portion of the financial assurance upon successful completion of construction, *but must retain a sufficient amount to ensure successful vegetative establishment and completion of the monitoring requirements.*
- Within 60 days of certification of successful replacement and completion of monitoring, the LGU must release any remaining financial assurance submitted by the applicant, provided all other conditions of the approval are met.

Replacement for Public Transportation Projects

Public Transportation Overview

Definition:

- A public transportation project means a project conducted by a public agency involving transportation facilities open to the public.
- The “Public Transportation” definition includes all public transportation projects, including public roads. However, much of this section of the WCA rule is applicable only to public road projects.

Public Transportation Overview

Replacement for Public Transportation Projects

New Road or expansion solely for additional traffic capacity → Regular replacement plan, but credits may be purchased from BWSR at cost

Repair, rehabilitation, reconstruction of currently serviceable road to meet design or safety standards → No replacement plan required, but there are conditions

- Must minimize impacts, consider onsite replacement, and submit public transportation appl. form (long form) to TEP 30 days prior to the impact
- For impacts <10,000 sf or emergency maintenance work, must minimize impacts, consider onsite replacement and submit short form to TEP within 30 days of impact

Public Transportation Overview

What is the LGU's role in these projects?

- For projects requiring a replacement plan, LGU's role is the same as with other projects. However, different citing criteria apply and transportation authority may be eligible to purchase credits from BWSR.

Public Transportation Overview

What is the LGU's role in these projects? (continued)

- **For projects *not* requiring a replacement plan, LGU serves on TEP. No decision required from the LGU. However, TEP is charged with reviewing delineation, minimization, and onsite mitigation considerations.**

End of Part 3

Next section please!